

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10 (canceled)

1 Claim 11 (currently amended): For use in a router having,
2 at a given time, a currently designated routing facility
3 and a current standby routing facility, a method
4 comprising:

5 a) informing an external node that the router has
6 redundant routing facilities;
7 b) informing an external node of the identity of the
8 currently designated routing facility;
9 c) providing, with the currently designated routing
10 facility when it is in a state of being the designated
11 routing facility, network information to the external
12 node in accordance with a routing protocol; and
13 d) providing, with the current standby routing
14 facility when it is in a state of being the standby
15 routing facility, network information to the external
16 node in accordance with a routing protocol,
17 wherein the external node runs a routing protocol
18 peering with a routing protocol run by the router.

1 Claim 12 (previously presented): The method of claim 11
2 wherein the currently designated routing facility and
3 current standby routing facility share a common forwarding
4 facility.

1 Claim 13 (previously presented): The method of claim 11
2 wherein the act of informing an external node that the
3 router has redundant routing facilities includes generating

4 and transmitting a message including an identification of
5 the router, an address of the currently designated routing
6 facility, and an address of the current standby routing
7 facility.

1 Claim 14 (original): The method of claim 11 wherein the
2 act of informing an external node that the router has
3 redundant routing facilities uses an existing BGP message
4 format.

1 Claim 15 (previously presented): The method of claim 11
2 further comprising:

3 e) if a failure of the currently designated routing
4 facility is determined, then
5 i) electing the current standby routing facility
6 as a new designated routing facility, and
7 ii) informing the external node of the identity
8 of the newly elected new designated routing
9 facility.

1 Claim 16 (currently amended): A router comprising:

2 a) a currently designated routing facility;
3 b) a current standby routing facility; and
4 c) a signaling facility adapted for
5 i) informing an external node that the router
6 has redundant routing facilities, and
7 ii) informing the external node of the identity
8 of the currently designated routing facility,
9 wherein the currently designated routing facility is
10 adapted to provide, when it is in a state of being the
11 designated routing facility, network information to the
12 external node in accordance with a routing protocol, and

13 wherein the current standby routing facility is
14 adapted to provide, when it is in a state of being the
15 standby routing facility, network information to the
16 external node in accordance with a routing protocol,
17 wherein the external node runs a routing protocol
18 peering with a routing protocol run by the router.

1 Claim 17 (previously presented): The router of claim 16
2 wherein the currently designated routing facility has a
3 first internet address and the current standby routing
4 facility has a second internet address.

1 Claim 18 (currently amended): A network having at least
2 two routers, each of the at least two routers comprising:
3 a) a currently designated routing facility;
4 b) a current standby routing facility; and
5 c) a signaling facility adapted for
6 i) informing an external node that the router
7 has redundant routing facilities, and
8 ii) informing the external node of the identity
9 of the currently designated routing facility,
10 wherein the currently designated routing facility is
11 adapted to provide, when it is in a state of being the
12 designated routing facility, network information to the
13 external node in accordance with a routing protocol, and
14 wherein the current standby routing facility is
15 adapted to provide, when it is in a state of being the
16 standby routing facility, network information to the
17 external node in accordance with a routing protocol,
18 wherein the external node runs a routing protocol
19 peering with a routing protocol run by the router.

1 Claim 19 (original): A machine-readable medium having
2 machine readable instructions stored thereon which, when
3 executed by a machine, effect the method of claim 11.

1 Claim 20 (previously presented): For use in a router
2 adapted to interact with an external router having, at a
3 given time, a currently designated routing facility and a
4 current standby routing facility, a method comprising:
5 a) accepting, from the external router, the identity
6 of the currently designated routing facility;
7 b) accepting, from the currently designated routing
8 facility of the external router when it is in a state
9 of being the designated routing facility, network
10 information;
11 c) using the network information accepted from the
12 currently designated routing facility of the external
13 router for determining routes; and
14 d) accepting, from the current standby routing
15 facility of the external router when it is in a state
16 of being the standby routing facility, network
17 information, but not using it for determining routes.

1 Claim 21 (previously presented): The method of claim 20
2 further comprising:
3 e) storing the network information accepted from the
4 current standby routing facility of the external
5 router.

1 Claim 22 (previously presented): The method of claim 20
2 further comprising:

3 e) accepting, from the external router, an indication
4 that the currently designated routing facility has
5 failed;
6 f) accepting, from the external router, an indication
7 that the formerly current standby routing facility has
8 been elected as a new designated routing facility; and
9 g) using path information from the newly elected new
10 designated routing facility.

1 Claim 23 (previously presented): The method of claim 21
2 further comprising:

3 f) accepting, from the external router, an indication
4 that the currently designated routing facility has
5 failed;
6 g) accepting, from the external router, an indication
7 that the formerly current standby routing facility has
8 been elected as a new designated routing facility; and
9 h) using the network information from the formerly
10 current standby routing facility that is now the newly
11 elected new designated routing facility.

1 Claim 24 (previously presented): A router adapted to
2 interact with an external router having, at a given time a
3 currently designated routing facility and a current standby
4 routing facility, the router comprising:

5 a) an input for
6 i) accepting, from the external router, the
7 identity of the currently designated routing
8 facility, and
9 ii) accepting, from the currently designated
10 routing facility of the external router when it

11 is in a state of being the designated routing
12 facility, network information; and
13 b) a routing facility for
14 i) using the network information accepted from
15 the currently designated routing facility of the
16 external router for determining routes, and
17 ii) accepting, from the current standby routing
18 facility of the external router when it is in a
19 state of being the standby routing facility,
20 network information, but not using it for
21 determining routes.

1 Claim 25 (previously presented): The router of claim 24
2 further comprising:
3 c) a storage device for storing the network
4 information accepted from the current standby routing
5 facility of the external router.

1 Claim 26 (previously presented): The router of claim 24
2 wherein the input is further adapted for
3 iii) accepting, from the external router, an
4 indication that the currently designated routing
5 facility has failed, and
6 iv) accepting, from the external router, an
7 indication that the formerly current standby
8 routing facility has been elected as a new
9 designated routing facility, and
10 wherein the routing facility is further adapted to use
11 path information from the newly elected new designated
12 routing facility when the input accepts the indication that
13 the formerly current standby routing facility has been
14 elected as the new designated routing facility.

1 Claim 27 (previously presented): The method of claim 25
2 wherein the input is further adapted for
3 iii) accepting, from the external router, an
4 indication that the currently designated routing
5 facility has failed, and
6 iv) accepting, from the external router, an
7 indication that the formerly current standby
8 routing facility has been elected as a new
9 designated routing facility, and
10 wherein the routing facility is further adapted to use
11 the network information that was accepted from the formerly
12 current standby routing facility and that was stored, if it
13 is newly elected as the new designated routing facility.

1 Claim 28 (original): A machine-readable medium having
2 machine readable instructions stored thereon which, when
3 executed by a machine, effect the method of claim 20.

Claim 29 (canceled)

1 Claim 30 (previously presented): The router of claim 16
2 further comprising:
3 d) means for electing the current standby routing
4 facility as a new designated routing facility if a
5 failure of the currently designated routing facility
6 is determined; and
7 e) means for informing the external node of the
8 identity of the newly elected new designated routing
9 facility.

1 Claim 31 (previously presented): The method of claim 11
2 wherein the external node is a second router which is
3 external to the router having, at a given time, a currently
4 designated routing facility and a current standby routing
5 facility.

1 Claim 32 (previously presented): The method of claim 31
2 wherein the router and the second router belong to
3 different autonomous systems.

1 Claim 33 (previously presented): The router of claim 16
2 wherein the external node is a second router which is
3 external to the router.

1 Claim 34 (previously presented): The router of claim 33
2 wherein the router and the second router belong to
3 different autonomous systems.

1 Claim 35 (previously presented): The method of claim 20
2 wherein the router and the external router belong to
3 different autonomous systems.

1 Claim 36 (previously presented): The router of claim 24
2 wherein the router and the external router belong to
3 different autonomous systems.